Date: Thu, 24 Jun 93 10:16:00 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #776
To: Info-Hams

Info-Hams Digest Thu, 24 Jun 93 Volume 93 : Issue 776

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 24 Jun 1993 15:31:37 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
ux1.cso.uiuc.edu!moe.ksu.ksu.edu!crcnis1.unl.edu!news.unomaha.edu!
cwis.unomaha.edu!ncc2001@network.UCSD.EDU
Subject: 2m ht
To: info-hams@ucsd.edu

I got my HTX-202 at a local ham radio dealer here in Omaha (Ladd Electronics)
that was traded in for one of the tiny Icoms (I don't remember which one)
after being used for only a few weeks. It only cost me (please sit down)
$150.00! Although I have not yet recieved my license (sp?) after a month

of waiting, I do use it as a scanner for 2M in my car with an external antenna
and 12v cig. adapter. For the first time ham, I think that the HTX is an
excellent buy, but make sure to check out any ham dealerships in your area
to see what used items they have for sale. You can save big $$$ this way.

73's
Michael Fortner
Still Pending

Date: Thu, 24 Jun 1993 13:10:37 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
darwin.sura.net!emory!rsiatl!ke4zv!gary@network.UCSD.EDU
Subject: [ANS] Wanted: Simple,Cheap,2m antenna project
To: info-hams@ucsd.edu

In article <1637@arrl.org> zlau@arrl.org (Zack Lau) writes:
>
>Keep in mind that losses in loaded HF verticals can be quite
>high, regardless of what material is used for the coil form.
>The PVC may melt even if it contributed no additional losses,
>simply because it is surrounded by hot wire. Anyone actually
>measure the additional losses caused by PVC?

PVC is somewhat more lossy than some other plastics. One test
I've seen is to try it in the microwave oven. PVC melts, microwave
safe plastic dishes don't. However, either will melt on a stove.
So the difference is at least partially due to the difference in
RF absorption. I'd imagine it's frequency dependent to a degree.
I use PVC as standoffs for a gamma rod that matches my tower on
160 meters. It hasn't melted at legal limit power.

Gary
--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | |

Date: 24 Jun 93 16:06:27 GMT
From: news-mail-gateway@ucsd.edu
Subject: ALERT: MAJOR SOLAR FLARE ALERT - SUSPECTED PROTON FLARE
To: info-hams@ucsd.edu

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MAJOR SOLAR FLARE ALERT

ISSUED: 14:00 UT, 24 JUNE

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* NIL to Low Impact Possible *

MAJOR ENERGETIC EVENT SUMMARY:

(All times are valid for the UT day of 24 June)

Flare Size: Class M9.7/1N
  Location: S11E64 (Region 7529)
  Tenflare: 390 sfu at 0722 UT.
SESC Times: Begin=24/0716 UT, Peak=24/0735 UT, End=24/0752 UT
            (SESC Times are based on a half-power-point system)
    Sweeps: Type II (Importance 3).
                  Estimated shock velocity: 2500 km/sec.
                  Begin: 0729 - 0736 UT.
            Type IV (Importance 3).
                  Begin: 0659 - 0900 UT.
   Protons: Proton enhancement expected over next 24 hours. Possible event.

PRELIMINARY X-RAY TIME PROFILE DATA AND ESTIMATED STATISTICS:

BEGIN (XRAY)	MAX (XRAY)	END (XRAY)	DURATION	INTEG. FLUX	SWF DUR.
0640 (B4.7)	0736 (M9.7)	0830 (C9.8)	110 MIN.	0.154 J/m^2	062 min

NOTE: The xray time profile data above is not based on the half-power-point
       system, but is intended to give a general idea of the duration of the
       entire event, from the start to the end when xrays fall below M-class
       levels. Integrated x-ray flux covers the interval from start to end.

SYNOPSIS:

     Region 7529 spawned a major class M9.7/2B tenflare from S11E64 at
     07:35 UTC. It was accompanied by major Types II and IV sweeps.
     The estimated shock velocity of the Type II was 2,500 km/sec.
     The x-rays from this region have shown impressive surges with
     long-decay signatures throughout the last 24 hours. The flare
     itself was similarly long in duration and had an impressive LDE
     signature. The region has not been magnetically imaged to

provide us with any quantitative information regarding shear levels or magnetic configurations. However, it will be closely scrutinized today. When it rotated into view yesterday, the region did not appear to be capable of producing large flares. X-ray imagery of this region was relatively dim. Likewise, it was not associated with any strong limb emissions (Ca XV or Fe emissions). But today, imagery is showing strong x-ray emissions from this region.

There is another region rotating into view behind Region 7529. It might possibly be old Region 7518. A bright surge was reported in the area of this new region.

Additional major flares are likely from Region 7529.

POTENTIAL TERRESTRIAL IMPACT ASSESSMENT:

The following tables depict the preliminary estimated potential for terrestrial impacts in various categories. These tables are valid only for the flare described and do not include assessments for previous influential flare events.

POTENTIAL MAGNITUDE OF DISTURBANCE	
HIGH	05 %
MODERATE	10 %
LOW	30 %
NONE	55 %
OVERALL ARRIVAL PROBABILITY	30 %

ESTIMATED WINDOW OF SHOCK ARRIVAL IF SHOCK ARRIVES

MINIMUM	EARLY	PREFERRED	LATE	MAXIMUM
25/2300 UT JUNE	26/0300 UT JUNE	26/0900 UT JUNE	26/1400 UT JUNE	26/1900 UT JUNE
10 %	40% PROBABILITY	40% PROBABILITY		10 %

(Preliminary Estimates)

```
  POTENTIAL FOR >10 MEV PROTONS          POTENTIAL FOR >100 MEV PROTONS
---------------------------------       ----------------------------------
    HIGH FLUX :  5 %  > 100 PFU             HIGH FLUX :  0 %  > 100 PFU
MODERATE FLUX : 45 %  >  10 PFU         MODERATE FLUX :  0 %  >  10 PFU
     LOW FLUX : 30 %  >   1 PFU              LOW FLUX :  1 %  >   1 PFU
         NONE : 20 %  <=  1 PFU                  NONE : 99 %  <=  1 PFU
----------------------------------      ----------------------------------
OVERALL ARRIVAL PROBABILITY: 50 %       OVERALL ARRIVAL PROBABILITY:  1 %

---------------------------------       ---------------------------------
EST. POTENTIAL GEOMAGNETIC IMPACT       EST. POTENTIAL IONOSPHERIC IMPACT
---------------------------------       ---------------------------------
       SEVERE STORM : 05 %                 LOW LATITUDES : MINOR
        MAJOR STORM : 10 %              MIDDLE LATITUDES : MINOR
        MINOR STORM : 30 %                HIGH LATITUDES : MINOR
     ACTIVE OR LESS : 55 %               POLAR LATITUDES : MINOR
---------------------------------       ---------------------------------
 PROBABLE SI ASSOCIATION : 75 %       ESTIMATED GLOBAL IMPACT: MINOR - MAJOR

ESTIMATED PRELIMINARY FORECAST PEAK PLANETARY A-INDEX: 27

ESTIMATED POTENTIAL DURATION OF DISTURBANCE IF IT ARRIVES: 24 TO 36 HOURS

EST. PROBABILITY FOR GEOSYNCHRONOUS SATELLITE MAGNETOPAUSE CROSSINGS:  40%


                     /\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\
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Date: Thu, 24 Jun 1993 15:32:21 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!torn!watserv2.uwaterloo.ca!watmath!undergrad.math.uwaterloo.ca!awpaeth@network.UCSD.EDU
Subject: CTCSS Tones and RS-220-A EIA
To: info-hams@ucsd.edu

Can someone please provide a summary of the 39 "PL" tones defined by the EIA? My (Canadian) reference library doesn't have this document; my short list presently contains merely the entries 103.5Hz, 127.3Hz and 181.8Hz.

/Alan Paeth
VE3AWP/KD3XG

Date: Thu, 24 Jun 1993 13:03:02 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!darwin.sura.net!emory!rsiatl!ke4zv!gary@network.UCSD.EDU

Subject: Ground Rods In Concrete
To: info-hams@ucsd.edu

In article <1993Jun23.151414.1941@ke4zv.uucp> gary@ke4zv.UUCP (Gary Coffman) writes:
>
>The duration of the typical lightning bolt is 200 microseconds.
>So to get deposited energy, that's what melts things and boils water,
>we multiply peak power by 2E-8 and divide by 3600 which gives 22.22
>watt-hrs of energy, or 75 BTU in this case. That's less energy than

The 2E-8 is a typo, should be 2E-4. The answer's right though, I did
it on a calculator. :-)

Gary

--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | |

Date: 24 Jun 93 10:59:35 CDT
From: timbuk.cray.com!hemlock.cray.com!cherry10!dadams@uunet.uu.net
Subject: ham radios in movies
To: info-hams@ucsd.edu

In article 70K@hpuerca.atl.hp.com, jab@hpuerca.atl.hp.com (Alan Barrow) writes:
|In <C8H6pr.J7n@ucdavis.edu> ez006683@othello.ucdavis.edu (Daniel D. Todd) writes:
|
|>Did anyone hear you while you were using your HT dep in the cave? :-)
|
|Kind of raises the ancient question:
|
| If an OF falls while sending cw in a cave, will any one hear it? :-)
|

Thought the question went, "If no one hears him, did he make a sound?"

David, N0WWN

--David C. Adams Statistician Cray Research Inc. dadams@cray.com
-Sourdough and Ham- - Minnesotans for Global Warming! -
(&gardner)

Date: Thu, 24 Jun 1993 13:37:00 GMT
From: swrinde!emory!rsiatl!ke4zv!gary@network.UCSD.EDU
Subject: How do you center on a station's frequency?
To: info-hams@ucsd.edu

In article <20as5v$q3h@charm.magnus.acs.ohio-state.edu> ksampath@magnus.acs.ohio-state.edu (Krishna S Sampath) writes:
>if you have a digital transceiver, say like the icom ic735 or
>somesuch, which has a 10 hz tuning rate and 100 hz display
>resolution, and no bfo (as far as i can tell), how can you
>exactly tune to the frequency of a station calling cq?

Short answer: you can't.

Slightly longer answer: It doesn't matter, 10 Hz is close enough, even with a 170 Hz filter he'll still hear you.

Even longer answer: There's a trick. You can adjust the "calibrate" control on top of the rig for perfect zero beat. Of course your dial calibration is screwed now, but it does work when you absolutely have to be zero beat. The "calibrate" control adjusts actual operating frequency, not the readout.

Finally, the rig does have RIT and XIT so you can do the offset that way.

Gary

--

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | |

Date: Thu, 24 Jun 1993 16:42:49 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!math.ohio-state.edu!sdd.hp.com!col.hp.com!fc.hp.com!perry@network.UCSD.EDU
Subject: How do you center on a station's frequency?
To: info-hams@ucsd.edu

Krishna S Sampath (ksampath@magnus.acs.ohio-state.edu) wrote:
: if you have a digital transceiver, say like the icom ic735 or
: somesuch, which has a 10 hz tuning rate and 100 hz display

: resolution, and no bfo (as far as i can tell), how can you
: exactly tune to the frequency of a station calling cq?

I have a Kwd TS-440 so you mileage may vary. I made the modification
to display 10s of Hz.

For CW, I tune for maximum S-meter reading. I have a 500 Hz filter.
I've configured the radio to emit a 400 Hz CW tone. I suppose I could
make a 400 Hz oscillator and beat to that. In practice it doesn't
matter too much.

For SSB, I assume the guy I'm talking to didn't choose 14.314.159 on
purpose and wanted me to tune his exact frequency. I tune until it
sounds reasonable, then round off to the nearest .25 KHz multiple. I
live about 10 miles from WWV and my VFO is calibrated fairly closely.

Once I transmit, I assume the other guy will use his RIT (receiver
incremental tuning) if my signal isn't where he wants it. I don't
adjust my transmitter, otherwise we might start dancing across the band.

73!

Perry Scott
AA0ET

Date: 24 Jun 93 16:51:11 GMT
From: news-mail-gateway@ucsd.edu
Subject: Phonetic Alphabet - let's get serious!
To: info-hams@ucsd.edu

C'mon folks -- some of your phonetics aren't even in my
dictionary. How am I even going to look 'em up?

Here's the phonetics I use when crashing a DX pileup:

A as in aye
B as in bwana
C as in czarina
D as in djellaba
E as in eunuch
F as in fjeld
G as in gnostic
H as in hombre
I as in iguana
J as in junta
K as in know

L as in lwei
M as in mnemonic
N as in ngultrum
O as in Oedipus
P as in pnuemonia
Q as in qoph
R as in rawinsonde
S as in syzygy
T as in tsar
U as in uitlander
V as in voix dire
W as in wring
X as in xylophone
Y as in you
Z as in zero

steve - W3GRG
mosier@iris.uncg.edu dit dit

Date: 24 Jun 1993 16:17:06 GMT
From: sun-barr!west.West.Sun.COM!l1-a!flloyd@decwrl.dec.com
Subject: STS-57 Element Set JSC-011
To: info-hams@ucsd.edu

In article <930623150815.2cc00630@STDVAX.GSFC.NASA.GOV>
ABFHB@STDVAX.GSFC.NASA.GOV writes:
>SB SAREX @ AMSAT $STS-57.007
>STS-57 Element Set JSC-011
>
>The following element set was generated by Gil Carman, WA5NOM, at
>the Johnson Space Center. This set is expected to be valid until
>the next major orbit burn which is scheduled for MET 2/18:25.
>Launch of STS-57 occurred at 15:07 UTC on June 21.
>

< deleted....>

This type of material now belongs in rec.radio.amateur.space

-fred

[Fred Lloyd, AA7BQ   Fred.Lloyd@west.sun.com]
[Sun Microsystems,   Systems Engineer]
[Phoenix, AZ   (602) 224-3517]

Date: 24 Jun 93 15:00:14 GMT
From: news-mail-gateway@ucsd.edu
Subject: Toroidal Inductor Arcing to Core
To: info-hams@ucsd.edu

Hey All: Here's one for those experienced in working with
toroidal inductors. I recently built an HF linear amp (3x4-400)
and used a powdered iron, 3 core, inductor for 80 & 160M.
When on 15M the toroid begins arcing to the core. The toroid
is wound w/abt 20 turns of 12ga. Thermaleze wire. The 3 cores are
(Red) T-240 material, glued in a stack and wrapped w/abt 3-4 layers
of 3M-Fiber Glass Tape. I discovered that if I shorted the adjacent
turn to the 15M tap, that is to the 20M tap, the problem went away.
Also, if I shorted just the 80 & 160 taps together when on 15 the
arcing also went away. Now, my question is why does this happen??
Any and all ideas would be appreciated.

                        73 de Walt - K2WK

Date: Thu, 24 Jun 1993 15:23:31 GMT
From: pau!splinter!mccarthy@uunet.uu.net
Subject: Toroidal Inductor Arcing to Core
To: info-hams@ucsd.edu

In article <9306241100.aa18108@COR5.PICA.ARMY.MIL>, waltk@pica.army.mil (Walter
Kornienko, GC-DSTI) writes:
|> Hey All: Here's one for those experienced in working with
|> toroidal inductors. I recently built an HF linear amp (3x4-400)
|> and used a powdered iron, 3 core, inductor for 80 & 160M.
|> When on 15M the toroid begins arcing to the core. The toroid
|> is wound w/abt 20 turns of 12ga. Thermaleze wire. The 3 cores are
|> (Red) T-240 material, glued in a stack and wrapped w/abt 3-4 layers
|> of 3M-Fiber Glass Tape. I discovered that if I shorted the adjacent
|> turn to the 15M tap, that is to the 20M tap, the problem went away.
|> Also, if I shorted just the 80 & 160 taps together when on 15 the
|> arcing also went away. Now, my question is why does this happen??
|> Any and all ideas would be appreciated.
|>
|>   73 de Walt - K2WK

Hmmm...It sounds like the cores are saturating. I would use at least 2 T-300-2A (A for double width) or a single T-400-2A core. I have a T-400-2A in a 4-1000 and don't have any problems with it. When wrapping each layer, I saturate the fiberglass tape with "Q-dope" and let it harden before applying the next layer and building up 4 layers on the core.

Mike WA1UAR

Date: Thu, 24 Jun 1993 16:55:49 GMT
From: sdd.hp.com!col.hp.com!fc.hp.com!perry@network.UCSD.EDU
Subject: Toroidal Inductor Arcing to Core
To: info-hams@ucsd.edu

Walter Kornienko, GC-DSTI (waltk@pica.army.mil) wrote:
: Hey All: Here's one for those experienced in working with
: toroidal inductors. I recently built an HF linear amp (3x4-400)
: and used a powdered iron, 3 core, inductor for 80 & 160M.
: When on 15M the toroid begins arcing to the core. The toroid
: is wound w/abt 20 turns of 12ga. Thermaleze wire. The 3 cores are
: (Red) T-240 material, glued in a stack and wrapped w/abt 3-4 layers
: of 3M-Fiber Glass Tape. I discovered that if I shorted the adjacent
: turn to the 15M tap, that is to the 20M tap, the problem went away.
: Also, if I shorted just the 80 & 160 taps together when on 15 the
: arcing also went away. Now, my question is why does this happen??
: Any and all ideas would be appreciated.

:   73 de Walt - K2WK

You might have a self-resonant inductor. i.e. it is a short at certain useful frequencies like 15 meters. Try coupling a dip meter into the open-circuit toroid with a loop of wire. Then, _slowly_ sweep from DC to 30 MHz and see where the dips are. Some self-resonances are extremely high-Q and you won't see them on the dip meter if you sweep past too quickly.

You don't mention what the toroid is used for. I built a plate choke as outlined in the ARRL Handbook. Maybe you'll need multiple toroids to avoid a self-resonance.

73,

Perry Scott
AA0ET

Date: 24 Jun 93 16:25:14 GMT
From: news-mail-gateway@ucsd.edu
Subject: WARNING: Potential Major Solar Flare Warning
To: info-hams@ucsd.edu

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POTENTIAL MAJOR SOLAR FLARE WARNING

ISSUED: 14:30 UT, 24 JUNE

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PRIMARY CANDIDATE FOR HIGH SOLAR ACTIVITY : REGION 7529 (S11E60)

ESTIMATED POTENTIAL MAGNITUDE OF ENERGETIC ACTIVITY OVER NEXT 7 DAYS

DAYS	C5.0	M1.0	M5.0	X1.0	X5.0	>X12.0
1( )P	95 %	50 %	30 %	05 %	5 %	1 %
3( )PG	100 %	65 %	50 %	30 %	10 %	1 %
5( )PG	100 %	80 %	60 %	40 %	15 %	2 %
7( )PG	100 %	90 %	70 %	40 %	20 %	2 %

DAYS = Number of days (from present) into the future (1, 3, 5 and 7 days).
(+) = Primary candidate region expected to GROW and DEVELOP.
( ) = Primary candidate region expected to STABILIZE or remain STABLE.
(-) = Primary candidate region expected to DECAY and SIMPLIFY.
(x)P = Possible proton and/or PCA threat. (x) may be one of (+), (-), or ( ).
(x)G = If a favorable major flare develops, a moderate to high probability exists that the event may be geoeffective.
xx % = Probability of activity equalling or exceeding the given x-ray class sometime over the next number of DAYS.
WLT = Data not applicable due to the West Limb Transit of the target region.

The above chart should be used as a guide only. It represents anticipated levels of activity based on current projections of region development. Actual conditions may, of course, differ from these projections.

SYNOPSIS:

Region 7529 (S11E60) produced a major M9.7/2B Tenflare with major Types II and IV sweeps at 07:35 UTC on 24 June. Preliminary analysis of this

region indicates that it may be capable of supporting additional strong major flares over the next week at least. Proton flares are a very real possibility. This latest event was a suspected proton flare. Most indicators point toward additional major flare activity from this spot group.

This warning will be updated as necessary over the coming days. This is a potentially significant solar region and should be monitored closely.

This warning will remain active until 05 July when it will be updated or allowed to expire.

/\

Date: 24 Jun 93 16:16:11 GMT
From: news-mail-gateway@ucsd.edu
Subject: WARNING: Potential Satellite Proton Event Warning
To: info-hams@ucsd.edu

/\

POTENTIAL SATELLITE PROTON EVENT WARNING

ISSUED: 08:00 UT, 24 JUNE

/\

ATTENTION:

A suspected major proton flare erupted from S11E64 (new Region 7529) at 07:35 UTC. An enhancement in protons at greater than 10 MeV is expected over the next 24 hours. The probability of them actually arriving is rather uncertain - models indicate a 46% probability with a peak flux near or slightly above 10 pfu.

More importantly, this region appears to be capable of producing additional significant energetic proton flares. As it rotates into an increasingly favorable geoeffective position, the probability for seeing potentially high proton levels at potentially high energies will increase.

Use the Internet command: "finger solar@xi.uleth.ca" for current plots of protons at greater than 1, 10 and 100 MeV.

Radio communicators are warned of the possibility for seeing polar cap absorption activity over the next two weeks from potentially significant

proton flares.

     This warning will remain active until 05 July.

** End of Warning **

Date: 24 Jun 93 14:43:48 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!darwin.sura.net!
news-feed-1.peachnet.edu!concert!duke!news.duke.edu!ee.egr.duke.edu!
jbs@network.UCSD.EDU
To: info-hams@ucsd.edu

References <weN95B6w165w@jackatak.raider.net>, <JJiF6B2w165w@fatcity.com>,
<1993Jun21.155708.1@ttd.teradyne.com>-1.
Subject : Re: Rat Shack & SAM

In article <1993Jun21.155708.1@ttd.teradyne.com> rice@ttd.teradyne.com writes:
<>> ...you are paying $39.95 for a great little program, and
<>> ONLY $10.00 plus S&H for a new callbook every year! That's a helluva
<>> deal and leave you nowhere to gripe! Sheeesh!
<
<Actually it's a pretty poor deal, when you can by a CD-ROM, with the Spring
<of 93 database and a few hundred MEG of Ham Shareware software, for $24.95
<from Walnut Creek CD-ROM.
<   John Rice - K9IJ

And don't forget to pick up the CD-ROM drive for, what, $250?

  -joe KD4LLV

--
           You spend the night
       Like you were spending a dime
              - Lyle Lovett

End of Info-Hams Digest V93 #776
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